

**TITLE: METHOD AND APPARATUS FOR DOWNLOADING DATA
 FROM A MACHINE**

CROSS REFERENCE TO RELATED APPLICATION

This application claims the benefit of U.S. Provisional Application No. 60/515,170 filed October 28, 2003.

BACKGROUND OF THE INVENTION

This invention relates to a data information retrieval system. More specifically, this invention relates to a method and apparatus for downloading data from a meat processing machine to a handheld or remote device and then sending that information to a controller such as a personal computer (PC) to generate reports.

When generating machine reports for a meat processing machine in a facility one must sit at the monitor or touch screen of a machine and read information regarding that machine. This information must be written down and then physically taken to a computer where the information is inputted and interpreted. This manual recording and calculation process allows for human error in the taking of information and also causes a need for an individual to continually monitor and take information to a computer to input the data. Consequently, there is a need in the art to provide for a device that will allow for information to be automatically transferred to the device from a machine so that the device may be used as an intermediary to transmit the machine information to other sources such as a computer.

For this device, the following specifications should be present:

1. Ability to be able to transfer files to a controller such as a PC.
2. Ability to be able to print this information out from the controller.
3. Ability to retrieve data from numerous machines in one plant.
4. The handheld unit or remote device could be proprietary to the specific machines.

5. Additional information from a display such as a touch screen may need to be transferred such as time, pressure settings, initials of the person gathering the data, name of product being run, recipe, etc.

Therefore, it is a primary object of the present invention to provide a method for downloading data from a machine to an intermediary device such that the device is able to transfer machine files to a controller.

Yet another object of the present invention is to provide a system wherein information taken from a machine by an intermediary device is able to be sent to a controller that prints out this information.

Another object of the present invention is to provide a device that can retrieve data from numerous machines in one plant.

Yet another object of the present invention is to provide an intermediary handheld unit that is proprietary to the specific machine that the information is being taken.

Yet a further object of the present invention is to provide an intermediate handheld device that is able to retrieve information from a display such as time, pressure settings, initials of person gathering the data, the name of the product being run, the recipe, and other such information.

These and other objects, features, or advantages of the present invention will become apparent from the specification and claims.

BRIEF SUMMARY OF THE INVENTION

This invention involves a method and means for downloading data from a machine, for example, in order to extract operational data from the machine by wireless or hard wire means.

The features of this invention are:

1. A system that would allow information to be downloaded or transferred from a machine into an intermediary device such as a handheld device.
2. Information on the intermediary device that can be downloaded to a controller.

3. Information that can be viewed or printed as documents or reports. (The information could consist of the information shown on the "Management Information Screen" of the touch screen.)

4. Options of methods to transfer information from the machine to the handheld device include, but are not limited to:

Infrared Frequency transfer (IR)

Radio Frequency transfer (RF)

Cable connection transfer

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective view of the device of the present invention; and

Fig. 2 is a schematic view of the device of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS OF THE INVENTION

As best seen in Fig. 1 the present invention involves a system of information retrieval 10. The system has at least one machine 12 having a display such as a touch screen or PLC 14 that governs its information. Additionally within the system is an intermediary device such as a handheld control unit 16 that is operatively associated with the touch screen or PLC such that it can be selectively actuated to download data from the touch screen or PLC. The handheld control 16 can have its own screen 18 such that an operator can view the information from the machine 12 that is to be transmitted. The handheld control unit 16 transmits information taken from the machine 12 to at least one controller such as a personal computer (PC) 20 that can have a printer 22 operably connected thereto to print out the information retrieved.

In operation, the method for downloading data from the machine 12 involves taking the handheld control unit 16 that is operably associated with the touch screen or PLC 14 that can be selectively actuated to download data from the touch screen or PLC 14 to a PC 20 such to transmit this information to the PC to be viewed and/or printed. Thus, information is transmitted from the touch

screen or PLC 14 to the handheld control unit 16 and then transmitted from the handheld control unit 16 to the PC.

Optionally, the machine 12 is a meat processing machine that processes information on its touch screen 14 such as the amount of time that the device runs, the pressure settings of the device, initials of the person gathering the data, the name of the product being run, the recipe being used to make the product, or any other information regarding the meat product being processed. One skilled in the art will understand that the handheld control 16 can be hardwired to the PC 20 or could be connected to the PC via a wireless system. Similarly, the handheld control 16 can be hardwired to the touch screen or PLC 14.

Optionally, the handheld device 16 can be a PALM unit that is associated with the PC 20 and either hardwired to an auxiliary port or an IR data port, and downloaded to a standard format, Excel, Word, Lotus, or WordPad. This information is not able to be manipulated but just viewed and printed out.

One skilled in the art will also appreciate that once the data is downloaded in the PC 20 from the handheld device 16 that the information can be viewed or printed as documents or reports. Optionally, this information could be entitled "Management Information Screen" on the screen 18 of the handheld device 16.

Additionally, one skilled in the art will appreciate there are many methods that may be used to transfer information from the machine touch screen 14 to the handheld device 16. The methods include, but are not limited to an infrared transfer, a radio frequency transfer, or a cable connection transfer.

Furthermore, one skilled in the art will understand that the handheld unit 16 can be proprietary to a specific machine 12, and will be able to receive data from numerous machines within one plant. For instance, six machines could transmit information at one time to the handheld device 16. Finally, one skilled in the art will understand that the handheld device 16 can transmit information to a plurality of different computers 20. Thus, all of the stated objectives have been met.

It will be appreciated by those skilled in the art that other various modifications could be made to the device without the parting from the spirit in

scope of this invention. All such modifications and changes fall within the scope of the claims and are intended to be covered thereby.